CLAIMS

1. A drive assembly for a supercharger comprising, in combination,

an input adapted for driving by an internal combustion engine,

a hydrostatic transmission driven by said input and an output gear,

a planetary gear assembly having a carrier coupled to said input and supporting a plurality of planet gears, a ring gear having internal gear teeth engaged by said planet gears and external gear teeth engaged by said output gear of said hydrostatic transmission and a sun gear engaged by said planet gears, and

a supercharger having an impeller coupled to said sun gear.

2. The drive assembly for a supercharger of claim 1 wherein said input shaft includes a pulley and said pulley is driven by a belt.

3. The drive assembly for a supercharger of claim 1 wherein said hydrostatic transmission includes a motor assembly, a swash plate assembly, and a pump assembly.

4. The drive assembly for a supercharger of claim 1 further including a drive gear on said input shaft and a driven gear engaged by said drive gear for driving said hydrostatic transmission.

5. The drive assembly for a supercharger of claim 1 further including means for sensing a speed of said turbocharger impeller and means for adjusting the ratio of input and output speeds of said hydrostatic transmission.

6. The drive assembly for a supercharger of claim 5 wherein said means for sensing includes a tone wheel disposed for rotation with said sun gear and a sensor disposed in sensing relationship with said tone wheel.

7. The drive assembly for a supercharger of claim 1 including a microprocessor adapted to receive a speed of and engine means for adjusting the ratio of input and output speeds of said hydrostatic transmission.

8. A drive assembly for a supercharger comprising, in combination,

an input shaft adapted to be driven by an internal combustion engine,

a continuously variable transmission having an input driven by said input shaft and an output,

a planetary gear assembly having a carrier coupled to said input shaft and supporting a plurality of planet gears, a ring gear having internal gear teeth engaged by said planet gears and external gear teeth engaged by said output gear of said output gear of said hydrostatic transmission and a sun gear engaged by said planet gears and having a sun gear, and

a supercharger having an impeller coupled to said sun gear.

9. The drive assembly for a supercharger of claim 8 further including a drive gear on said input shaft and a driven gear engaged by said drive gear for driving said hydrostatic transmission.

10. The drive assembly for a supercharger of claim 8 wherein said hydrostatic transmission includes a motor assembly, a swash plate assembly, and a pump assembly.

11. The drive assembly for a supercharger of claim 8 wherein said input shaft includes a pulley and said pulley is driven by a belt.

12. The drive assembly for a supercharger of claim 8 further including means for sensing a speed of said turbocharger impeller and means for adjusting the ratio of input and output speeds of said hydrostatic transmission.

13. The drive assembly for a supercharger of claim 12 wherein said means for sensing includes a tone wheel disposed for rotation with said sun gear and a sensor disposed in sensing relationship with said tone wheel.

14. The drive assembly for a supercharger of claim 8 including a microprocessor adapted to receive a speed of and an engine and means for adjusting the ratio of input and output speeds of said continuously variable transmission.

15. A constant speed drive assembly for a supercharger comprising, in combination,

an input shaft adapted to be driven by an internal combustion engine,

a continuously variable transmission having an input driven by said input shaft, an output and a controller for adjusting the speed ratio between said input and said output,

a planetary gear assembly having a carrier coupled to said input shaft and supporting a plurality of planet gears, a ring gear having internal gear teeth engaged by said planet gears and external gear teeth coupled to said output of said continuously variable transmission and a sun gear engaged by said planet gears, and

a supercharger having an impeller coupled to said sun gear,

a microprocessor means having a speed input and an output driving said controller.

16. The drive assembly for a supercharger of claim 15 wherein said input shaft includes a pulley and said pulley is driven by a belt.

17. The drive assembly for a supercharger of claim 15 wherein said continuously variable transmission includes a motor assembly, a swash plate assembly, and a pump assembly.

18. The drive assembly for a supercharger of claim 15 further including a drive gear on said input shaft and a driven gear engaged by said drive gear for driving said continuously variable transmission.

19. The drive assembly for a supercharger of claim 15 further including a tone wheel disposed for rotation with said sun gear and a sensor disposed in sensing relationship with said tone wheel.

20. The drive assembly for a supercharger of claim 15 wherein said microprocessor is adapted to receive a speed of and an engine and means for adjusting the ratio of input and output speeds of said continuously variable transmission.